

REMARKS/ARGUMENTS

Favorable reconsideration and allowance of the present patent application are respectfully requested in view of the foregoing amendments and the following remarks. Claims 1-49 are pending in the application. Claims 1, 11, 16, 21, 23, 33, 38, 43 and 45-48 are independent claims. Claims 45-49 are added by this Amendment.

35 U.S.C. 103(a) – Needham

Claims 1-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,517,507 (“Needham”). Applicant respectfully traverses this art grounds of rejection.

Needham is directed to providing a notification, with an energy burst, to indicate a message has been received with an unacceptable quality (i.e., a NACK), and to request its retransmission. Thus, referring to FIGS. 3 and 4, at the transmitter, frames 1...N are transmitted (step 301), and the transmitter monitors for energy bursts (step 303). At the receiver, frames 1...N are decoded (steps 401 and 403) and when one or more frames have an unacceptable quality (step 405) the receiver transmits an energy burst (step 411) to indicate that certain frames were not decoded correctly. At the transmitter, if an energy burst is received (step 305), the transmitter determines the NACKed frames (step 307) and retransmits the frames (step 309), which are then received at the receiver (step 413), or else another energy burst (i.e., NACK) is sent and another retransmission of the NACKed frames is sent, and so on.

Needham discloses nothing related to transmitting messages in different manners such that messages have differing probabilities of being successfully decoded at the receiver. The Examiner admits this, but alleges that the illustrated messages of Needham “represent any combination of data messages”, and “it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to transmit messages of different

characteristics” (e.g., see Page 3 of the 8/25/2004 Office Action). Applicant respectfully disagrees.

Needham has provided no rationale for why one message would be transmitted in a different manner than any other, such that Applicant cannot see how it is obvious from Needham to deliberately transmit different message portions with different characteristics such that “the first characteristic provides a first probability of successful reception, and the second characteristic provides a second probability of successful reception”. In an example from the Specification, transmitting message portions in this manner permits a receiving entity to expect a second portion based on a first portion being decoded successfully so as to improve error detection, but no such teaching is present in Needham.

As such, Applicant respectfully submits that the Examiner has now shown the claim language wherein “the first characteristic provides a first probability of successful reception, and the second characteristic provides a second probability of successful reception” as recited in independent claim 1 and similarly recited in independent claims 1, 21, 23 and 43 to be present within Needham.

Further, independent claim 21 recites “transmitting at least one second message portion at a second energy per bit”, “receiving a request for retransmission of at least one second message portion” and “retransmitting the requested at least one second message portion at a third energy per bit”. This limitation is recited similarly in independent claim 43. Turning to Needham, nothing is disclosed that would indicate that the retransmitted NACKED frames in step 309 of FIG. 3 are transmitted at a different power level than their initial transmission attempt. For example, Needham simply states the following:

The NACKed data frames are retransmitted at step 309, and the process continues with step 303. The transmitting device continues to retransmit NACKed data frames as long as energy bursts are detected in the predetermined time window. The transmitting device may then begin transmission of a new data message.

(e.g., see Col. 5, lines 57-64 of Needham)

The above-reproduced section does not disclose retransmitting the NACKed frames at a different power level, and as such Needham cannot disclose or suggest the above-noted claim limitation present in independent claims 21 and 43.

Further, independent claims 11, 16, 33 and 38 are directed to the receiving-side, and each of these claims generally recites that the first and second message portions are received at first and second times, respectively, and further at that “the second time has a known temporal relationship to the first time”, or a similar variation. By contrast, the receiver in FIG. 4 of Needham receives frames 1...N in step 401 by constantly monitoring a traffic channel, but there does not appear to be any “known temporal relationship” between any of frames 1...N. In an example from the Specification of the subject application, the known temporal relationship allows a receiver to expect the second message portion at the second time when the first message portion at the first time is decoded successfully, such that a NACK is prompted if the second message portion is not received at the expected time. No such teaching appears to be present in Needham.

For the reasons given above, Applicant respectfully submits that independent claims 1, 11, 16, 21, 23, 33, 38, 43 are allowable over Needham. As such, claims 2-10, 12-15, 17-20, 22, 24-32, 34-37, 39-42 and 44, dependent upon independent claims 1, 11, 16, 21, 23, 33, 38 and 43, respectively, are likewise allowable over Needham at least by virtue of their dependency upon the independent claims.

Applicant respectfully requests that the Examiner withdraw this art grounds of rejection.

Allowance requested for newly added claims 45-49

Independent claims 45-49 are directed to a different statutory category invention (*i.e., a computer readable storage medium*), but each of these claims otherwise includes limitations similar to one or more of the independent claims discussed above, and should be allowed for the same reasons. Applicant notes that support for the computer-readable medium aspect of claims 45-48 may be found at least within Paragraph [0059] of the Specification.

Further, Applicant directs the Examiner to newly added claim 49, which recites “wherein the first message portion is configured to indicate the presence of the second message portion to a receiving entity”. By contrast, Needham appears to transmit each message independently, and no message appears to indicate the presence of any other. In an example, the presence indication of the second message portion by the first message portion can be used to determine whether the second message portion has been lost at the receiving entity, so that a NACK is prompted. No such teaching is present in Needham. Accordingly, an indication of allowance for claim 49 is respectfully requested.

Reconsideration and issuance of the present application is respectfully requested.

CONCLUSION


In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, at the telephone number listed below.

Deposit Account Authorization

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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